Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary	Application No. 08/865,962	Applicant(s) Jakob NIELSEN
	Examiner Quoc-Khanh Le	Group Art Unit 2757

☒ Responsive to communication(s) filed on *Jun 4, 1999*_____ .

☐ This action is **FINAL**.

☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire ___*three*___ month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

Disposition of Claims

☒ Claim(s) *2-7 and 9-22*_____ is/are pending in the application.

   Of the above, claim(s) _____ is/are withdrawn from consideration.

☐ Claim(s) _____ is/are allowed.

☒ Claim(s) *2-7 and 9-22*_____ is/are rejected.

☐ Claim(s) _____ is/are objected to.

☐ Claims _____ are subject to restriction or election requirement.

Application Papers

☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The drawing(s) filed on _____ is/are objected to by the Examiner.

☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

   ☐ All ☐ Some* ☐ None of the CERTIFIED copies of the priority documents have been

      ☐ received.

      ☐ received in Application No. (Series Code/Serial Number) _____ .

      ☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

   *Certified copies not received: _____ .

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

☒ Notice of References Cited, PTO-892

☒ Information Disclosure Statement(s), PTO-1449, Paper No(s). ___7___

☐ Interview Summary, PTO-413

☐ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

--- *SEE OFFICE ACTION ON THE FOLLOWING PAGES* ---

DETAILED ACTION

1.   Claims 2-7 and 9-22 are pending for examination. Claims 1 and 8 have been canceled in

applicant's amendment on 06/04/1999. This office action is non-final.

Allowable Subject Matter

2.   The indicated allowability of claims 4-7 and 9-22 is withdrawn in view of the newly

discovered reference(s). The delay in citation of this art is regretted. Rejections based on the

newly cited reference(s) follow.

Claim Rejections - 35 USC § 102

(e) the invention was described in a patent granted on an application for patent by another filed in the United
States before the invention thereof by the applicant for patent, or on an international application by another who
has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371© of this title before the invention
thereof by the applicant for patent.

3.   Claims 2-4, 12, 19, 21, and 22 are rejected under 35 U.S.C. 102(e) as being anticipated by

Baugher et al., U.S. 5,581,703 ("Baugher).

        As to claim 2, Baugher teaches a system [fig. 1], comprising:

        a bus (bus 150);

at least one communication interface connected to said bus (communications adapter 250 [col.3, lines 50-51]);

a processor (main processor 110) connected to said bus, said processor configured to allocate communication bandwidth to connections serviced by said at least one communications interface based on at least one set of priorities (a prioritizing scheme [col. 4, lines 49-51, lines 66-67] for providing information of different types [col. 4, lines 33-35; col. 7, lines 42-45] with a quality of service or bandwidth [col. 1, lines 51-52; col. 4, lines 66-67]).

As to claim 3, Baugher teaches that information could be video (AVI), waveform audio (WAV), musical (MIDI), animation, graphic (GIF, JPEG), etc [col. 4, lines 35-37; col. 7, lines 45-48].

As to claim 4, Baugher teaches most of the claimed limitations as applied to claim 2. Further, Baugher teaches that priorities are based on quality of service parameters such as throughput, burst, and delay ("how fast user connections can receive information") [col. 6, line 63 to col. 7, line 5; figs. 6 and 8].

As to claim 12, Baugher teaches a data processing system 100 [fig. 1] which allocates communications bandwidth [col. 2, lines 48-60] based on at least one set of priorities [col. 1, lines

49-52; col. 4, lines 66-67] to a plurality of user connections (communications line 260 and other

data processing systems 270).

As to claim 19, Baugher teaches a system [fig. 2], comprising:

a network [network 310, 340];

at least one server connected to said network [workstation 300, 320, 330]; and

at least one computer running at least one process connected to said network, in which the

at least server or the at least one computer allocates bandwidth to a plural of network connections

based on at least one set of priorities [abstract; col. 1, lines 51-56; col. 4, lines 66-67]

As to claims 21 and 22, Baugher teaches a system [fig.1], comprising:

a memory medium [main memory 120, hard disk 255, removable media 290];

a computer program, stored in said memory medium, said computer program comprising

instructions for allocating communications bandwidth (at a server) to a plurality of user /

communications connections based on at least one set of priorities [abstract; col. 1, lines 51-56;

col. 4, lines 66-67].

Claim Rejections - 35 USC § 103

4.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness

rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5.   Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Baugher et al., U.S. patent 5,581,703 ("Baugher"), in view of Nielsen, U.S. 5,826,031.

Baugher teaches most of the claimed limitations as applied to claim 2. However, Baugher does not explicitly show one set of priorities comprising priorities based on which part of a document. On the other hand, Nielsen teaches a method and system for prioritized downloading of embedded Web object. Nielsen shows that parts (sections surrounded by < and > tags) of a Web page are given a priority with a PRIORITY attribute [col. 6, lines 13-37]. Therefore, one of ordinary skill in the art would have been motivated to modify Baugher according to Nielsen in order to establish a set of priorities based on parts of a transmitted document because a document may contain text, picture, etc, and as applied to claims 2 and 3, different parts should be given different priorities.

6.   Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Baugher et al., U.S. patent 5,581,703 (Baugher), in view of Natarajan, U.S. 5,742,594.

Baugher teaches most of the claimed limitations as applied to claim 2 above. However, Baugher does not explicitly show one set of priorities based on user identity. Natarajan teaches a method and apparatus for allocating shared bandwidth among a plurality of users. Natarajan

classifies users in two categories: real time and non-real time users [col. 1, lines 13-30]. The non-real time users further may belong to three priorities class: high, medium, and low [col. 4, lines 39-41]. Given the teaching of Natarajan, one of ordinary skill in the art would have been motivated to modify Baugher to allocate bandwidth to user connections according to priorities based on user identity in order to fulfill communication services to different types of users as Natarajan suggests [col. 1, lines 13-30].

7.   Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Baugher et al., U.S. patent 5,581,703 ("Baugher").

Baugher teaches most of the claimed limitations as applied to claim 2. Baugher does not explicitly show one set of priorities based on stored indicia indicating importance of the document. However, it is well known in the art, that in some communications networks such as Internet, the security of the data transmission is not high. For improving the situation the data is encrypted and transmitted. It would have been obvious to one of ordinary skill in the art to modify Baugher in order to create a set of priorities based on the importance of a document because transmitting a document with a larger bandwidth will be ended earlier and short transmission time means in some situations more data security.

8.   Claims 9-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Baugher et al., U.S. patent 5,581,703 ("Baugher"), in view of Kidder et al., U.S. 5,903,735 ("Kidder").

As to claim 9, Baugher teaches most of the claimed limitations. However, Baugher does not explicitly show one set of priorities comprising priorities based on the state of application processes. On the other hand, Kidder teaches that twitch applications have as real-time, time critical applications [col. 5, lines 4-18] a priority higher than regular applications [col. 7, line 66 to col. 8, line 2]. Given the teaching of Kidder, one of ordinary skill in the art would have been motivated to modify Baugher in order to give an urgent application more bandwidth to maintain the quality of service.

As to claims 10 and 11, although the combination of Baugher and Kidder does not explicitly teaches one set of priorities based on foreground/background state of a process or the degree to which a process window is ready for use by a user. However, Kidder teaches an active, real-time, time critical application should be prioritized relative to other applications (see claim 9, see abstract). Therefore, one of ordinary skill in the art would have been motivated to modify the combined teaching of Baugher and Kidder in order to give an interactive application (foreground process, opened window) the priority higher than an interactive application (background process, minimized window).

9.   Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Baugher et al., U.S. patent 5,581,703 (Baugher), in view of Hahne et al., U.S. 5,115,430.

Baugher teaches most of the claimed limitations as applied to claim 12 above, however Baugher does not explicitly show that bandwidth is allocated to a user connection based on the ratio of user connection priority to the sum of priorities of all user connections. On the other hand, Hahne teaches fair access of multi-priority traffic. Hahne teaches a "time division" approach, wherein parcels of the same priorities get the same bandwidth and parcels of different priorities are offered bandwidth in proportion to their bandwidth balancing factors [col. 7, equation 13, lines 30-34; col. 8, lines 22-26]. Given the teaching of Hahne, it would have been obvious to one of ordinary skill in the art to modify Baugher in order to allocate bandwidth proportional to priorities of user connections: proportional allocating is one of the most well allocating method.

10.   Claims 15 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Baugher et al., U.S. patent 5,581,703 ("Baugher"), in view of Shaffer, U.S. 5,673,253.

As to claim 15, Baugher teaches most of the claimed limitations as applied to claims 12 and 13. However, Baugher does not explicitly teach that bandwidth allocation is recalculated on an event driven basis. Shaffer teaches dynamic allocation of telecommunication resources: if the availability of resources is detected as being below a predetermined threshold level, bandwidth reallocation is triggered [col. 3, lines 24-30; col. 6, lines 1-9]. Given the teaching of Shaffer, one

of ordinary skill in the art would have been motivated to modify Baugher in order to get the

quality of service or bandwidth up-to-date with the current events.

As to claim 16, Shaffer teaches that bandwidth of one or more established sessions may be

reduced to avoid a blockage condition [col. 3, lines 24-30; col. 6, lines 1-9]. Therefore, it would

have been obvious that arrival of a new request for retrieval will according to Shaffer trigger a

recalculation of bandwidth in order to ensure free bandwidth for subsequent requests.

11.   Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Baugher et al.,

U.S. patent 5,581,703 ("Baugher").

Baugher teaches a data processing system 100 [fig. 1] which allocates communications

bandwidth [col. 2, lines 48-60] based on at least one set of priorities [col. 1, lines 49-52; col. 4,

lines 66-67] to a plurality of connections (communications line 260 and other data processing

systems 270). Although Baugher does not explicitly show that other data processing systems 270

can be server systems, it would have been obvious that using other data processing systems 270

as server systems depends merely on the environment, wherein Baugher's teaching is applied, but

does not have any effects on the allocating bandwidth on communication line 260 based on a set

of priorities.

12.   Claims 13 and 20 have similar limitations as claims 2 (type of information), 4 (how fast

user connection), etc and therefore are rejected under the same rationale.

13.   Claim 18 has similar limitations as claim 9, and therefore is rejected under the same

rationale.

Conclusion

14.   Any inquiry concerning this communication or earlier communications from the examiner

should be directed to Q.-K. Le whose telephone number is (703) 305-0141. The examiner can

normally be reached on Monday-Friday from 8:00 a.m. to 4:30 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Glenton Burgess, can be reached on (703) 305-4792.

15.   Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231

or faxed to:

(703) 308-9051, (for formal communications intended for entry)
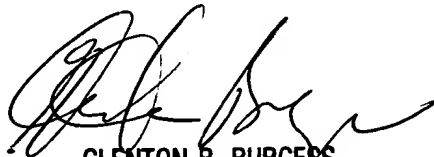
or:

(703) 305-5358 (for informal or draft communication, please label "PROPOSED"

or "DRAFT").

Hand-delivered responses should be brought to Crystal Park II,

2121 Crystal Drive

Arlington, VA., Sixth Floor (Receptionist)

16.   Any inquiry of a general nature or relating to the status of this application or proceeding

should be directed to the Group receptionist whose telephone number is (703) 305-9700.

Q.-K. Le

Art Unit 2757

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